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|-------------------------------|------------------------|---------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 09/762,263 | HOLMA ET AL. | |
| | Examiner | Art Unit | |
| | Hong Cho | 2662 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed on 11/25/2005.
 2. ☒ The allowed claim(s) is/are 22-43 (renumbered 1-22).
 3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

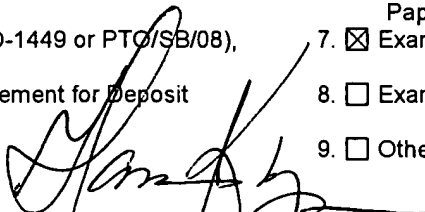
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |


HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Alphonso Collins on 1/10/2006.

The application has been amended as follows:

On page 2, lines 7-15, of the specification have been amended as shown in the attachment **A**.

Claims 22, 24, 34 and 40 have been amended as shown in the attachment **A**.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - US Publication (20010030948) to Tiedemann
 - US Patent (6760320) to Bune
 - US Patent (6337987) to Agin et al

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hc

Hong Cho
Patent Examiner
1/12/2006

Attorney Docket # 4925-105RCE

Serial No. 09/762,263

Attachment A

In the Specification:

On page 2, lines 7-15, of the specification, the paragraph beginning with "The outer loop 102", amend the paragraph as follows:

—The outer loop 102 of a closed loop power control system selects the target value for the inner loop. In Fig. 1 the loop is presented to be implemented in a separate network element 112. The outer loop monitors the quality of the received signal. This can be done, for example, by periodically sending frame error rate (FER) values to the outer loop. This is presented in ~~Fig. 1 by arrow 132~~ Fig. 1 by arrow 132. The signal quality block 126 checks if the received signal quality is as good as needed. If needed, it adjusts the target value of ~~the~~ a controlled variable in the target value adjustment block 127. The setting of a new target value for the controlled variable is presented in Fig. 1 with arrow 133.—

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In the Claims:

22. (Currently Amended) A method for controlling transmission power of a signal which is received using ~~one or more~~ a number of rake fingers, said method comprising the steps of:

- determining a value for a controlled variable;
- comparing the controlled variable value to a target value;
- determining a discrepancy for the controlled variable value based on information that includes at least the ~~one or more~~ number of rake fingers used in receiving the signal; and
- taking into account said discrepancy when comparing the controlled variable value to the target value.

23. (previously presented) The method of claim 22, further comprising the steps of:

- determining a signal power estimate using a certain part of the radio signal; and
- determining an interference estimate;
- wherein the value for a controlled variable is determined using said signal power estimate and said interference estimate.

24. (Currently Amended) The method of claim 23, wherein:

- determining a first discrepancy between said signal power estimate and the actual signal power is determined using at least the ~~one or more~~ number of rake fingers and the interference estimate:
 - a second discrepancy between said interference estimate and the actual interference is determined using at least said signal power estimate;
 - and
 - both discrepancies are taken into account when comparing the controlled variable value to the target value.

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25. (previously presented) The method of claim 22, wherein the discrepancy depends on the value of the controlled variable.

26. (previously presented) The method of claim 23, wherein the discrepancy depends on the value of the controlled variable.

27. (previously presented) The method of claim 22, wherein the discrepancy is eliminated from the controlled variable value.

28. (previously presented) The method of claim 22, wherein said target value is modified to comprise said discrepancy.

29. (previously presented) The method of claim 22, wherein the signal to interference ratio is used as the controlled variable.

30. (previously presented) The method of claim 22, wherein the method is a closed loop power control method.

31. (previously presented) The method of claim 22, wherein the initial target value is the same for all connections used to carry a certain service.

32. (previously presented) The method of claim 22, wherein:

more than one receiver is receiving the signal;

in each receiver a receiver-specific value for the controlled variable is determined;

the discrepancy is determined for each receiver; and

the receiver-specific discrepancies are taken into account in comparing the receiver-specific controlled variable value to the target value.

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33. (previously presented) The method of claim 32, further comprising the step of:
sending a same target value to all the receivers; and
wherein the receiver-specific discrepancies are taken into account
in each receiver.

34. (Currently Amended) A network element of a cellular network, said network
element comprising:

means for controlling the transmission power of a signal received
using a rake receiver using a determined value of a controlled variable;

means for determining a discrepancy for the determined controlled
variable value based on information that includes at least ~~one or more~~ a
number of rake fingers used in receiving the signal; and

means for taking the discrepancy into account when comparing the
controlled variable value to a target value.

35. (previously presented) The network element of claim 34, wherein the means
for taking the discrepancy into account comprise one of the following: means for
eliminating said discrepancy from the controlled variable value, and means for modifying
said target value to comprise said discrepancy.

36. (previously presented) The network element of claim 34, said network
element further comprising:

means for determining a signal power estimate of a certain part of
the received signal; and

means for determining an interference estimate.

37. (previously presented) The network element of claim 34, wherein said
network element is a base station.

38. (previously presented) The network element of claim 37, wherein said
network element is a base station of a WCDMA network.

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39. (previously presented) The network element of claim 34, wherein said network element is a radio network controller of a WCDMA network.

40. (Currently Amended) A mobile station comprising:

- a rake receiver;
- means for controlling the transmission power of a received signal using a determined value for a controlled variable;
- means for determining a discrepancy for the controlled variable value based on information that includes at least ~~one or more~~ a number of rake fingers used in receiving the signal; and
- means for taking said discrepancy into account when comparing the controlled variable value to a target value.

41. (previously presented) The mobile station of claim 40, wherein the means for taking the discrepancy into account comprise one of the following: means for eliminating said discrepancy from the controlled variable value, and means for modifying said target value to comprise said discrepancy.

42. (previously presented) The mobile station of claim 40, said mobile station further comprising:

- means for determining a signal power estimate of a certain part of the received signal; and
- means for determining an interference estimate.

43. (previously presented) The mobile station of claim 40, wherein said mobile station is a mobile station of a WCDMA network.